Juncus howellii F.J. Hermann
Howell's rush
Juncaceae (Rush Family)

Status: State Threatened
Rank: G5T5S1

General Description: Adapted from Hitchcock et al. (1969): A rhizomatous perennial that is 7¾ to 23½ in. (20 to 60 cm) tall with slightly compressed stems exceeding the leaves. The sheaths have membranous margins that are free above and form erect earlike lobes at the base that are 1/32 to 1/8 in. (1 to 3 mm) long. The grasslike blades are 1/16 to 1/8 in. (2 to 4 mm) broad, flattened, have distinct dorsal and ventral surfaces, and lack cross-walls. There are 2 to 9 heads in a terminal inflorescence that is ¾ to 3½ in. (2 to 9 cm) long. Each head is 3 to 15 flowered and ¼ to 2/3 in. (7 to 17 mm) broad. The involucral bract is rarely as much as 2/3 in. (15 mm) long. The perianth segments are lanceolate-acuminate, ¼ in. (5 to 6½ mm) long, subequal, medium- to chestnut-brown with a broad greenish midstripe, and usually have sparse soft trichomes toward the tip (under 20X magnification). There are 6 stamens. The anthers are 1/16 to 1/8 in. (1¾ to 2½ mm) long, and much longer than the filaments. The capsule is obovoid, rounded, and 1/32 to 1/16 in. (1 to 2 mm) shorter than the perianth. The seeds are about 1/32 in. (1 mm) long, the body is ellipsoid-ovoid, 1/64 to 1/32 in. (½ to ¾ mm) long, and covered with a strongly network patterned membrane. There is also a conspicuous appendage at each end of the seed.

Identification Tips: *Juncus howellii* is most closely related to *J. longistylis*. These two species can be distinguished by their perianth segments and heads. The perianth segments of *J. howellii* lack broad thin, silvery-translucent margins, and its 2 to 9 heads are discrete. The perianth segments of *J. longistylis* have broad, thin, silvery-translucent margins and it has 2 to 5 discrete or aggregated heads. *J. howellii* is not readily distinguishable from *J. regelii* or *J. orthophyllus* when immature. Their sheaths can distinguish these species. The sheaths of *J. howellii* project upward into prominent, truncate to rounded lobes at the point of the juncture with the blades. The sheaths of *J. regelii* and *J. orthophyllus* form only small, linear, acute lobes, if any. A technical key is needed for positive identification.

Phenology: Identifiable from July to August.

Juncus howellii
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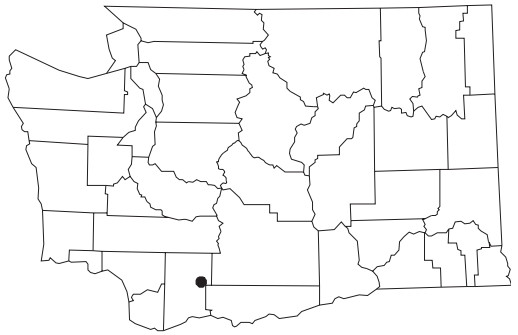
Known distribution of
juncus howellii
in Washington



● Current (1980+)
◌ Historic (older than 1980)

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Range: This species is found chiefly in California, from Siskiyou to Trinity and Butte counties, but it also extends northeast to northeastern Oregon and west to central Idaho. In Washington, it has been seen in Skamania County.

Habitat: *Juncus howellii* prefers moist areas in the mountains. In Washington, this species was found in a wet, bouldery area at the base of a basalt cliff in a riparian zone at an elevation of 2840 ft (866 m). Associated species include glaucous willowherb (*Epilobium glaberrimum*), bedstraw (*Galium* sp.), clasping arnica (*Arnica amplexicaulis*), horsetail (*Equisetum* sp.), and violet (*Viola* sp.).

Ecology: This species is found in riparian zones at varying elevations.

State Status Comments: Known from one recent occurrence within the Gifford Pinchot National Forest in Skamania County. Very little information is known about this population.

Inventory Needs: Riparian areas in Skamania County should be systematically surveyed for additional populations and known occurrences should be revisited. Information about the plants and their habitat should be collected.

Threats and Management Concerns: Current threats include siltation and alteration of the flood regime or water level from timber harvest, road building, and other disturbances.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest* Part 1: *Vascular Cryptogams, Gymnosperms, and Monocotyledons.* University of Washington Press, Seattle, WA. 914 pp.

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